



EnhanceFitness

Evidence-based Physical Activity Program for Older Adults

Program approved by AoA, NCOA, and CDC Arthritis Program

Website: www.projectenhance.org

Year Program First Implemented in Community Settings: 1997. Currently implemented at 400+ sites in the United States.

Program Synopsis

- General description of program
 - EnhanceFitness is low-cost, evidence-based group physical activity program developed specifically for older adults. The exercises have been packaged into a formal regimen focusing on four key areas important to the health and fitness of mature participants: stretching and flexibility; low impact aerobics; strength training; and balance. Classes meet three times a week, an hour each session, providing social stimulation as well as physical benefits.
- Program goal
 - The goal of EnhanceFitness is to improve the overall functional fitness and well-being of older adults.
- Reasoning behind the program design and elements
 - Clinical researchers have proven unequivocally that physical activity reduces the risks of dying prematurely from heart disease, and of developing diabetes and colon cancer. It can help reduce high blood pressure for those who already have it, relieve feelings of depression and anxiety, help control weight, help build and maintain healthy bones, muscles and joints, and help older adults become stronger, more balanced, supple and more able to move without falling (Keenan & Hawkins, 2004).
 - Regular exercise in older adults improves energy metabolism, and vigorous resistance training substantially increases strength. Long-term controlled trials of exercise suggest that it reduces the loss of bone strength (Buchner & Wagner, 1992).
 - To address older adult physical activity needs, EnhanceFitness is multi-component and combines several key fitness areas: aerobic exercise, strength training, flexibility, and balance training.
 - EnhanceFitness can be tailored for specific chronic diseases (e.g., arthritis).
 - EnhanceFitness is taught by a certified fitness instructor to ensure quality assurance and safety.
 - Group participation and social interaction are often cited by participants as important dimensions of EnhanceFitness. Many participants have been attending classes for years, and will call another participant who stops coming to encourage them to return.
- Target population

- Older adults, from the frail to the fit. The class can be taken seated or standing, and instructors are trained in how to modify the exercises to suit the varying abilities of participants. A pilot program is currently being conducted for cognitively impaired participants, and results thus far are positive.
- Enrollees' physicians are informed in writing of their patients' upcoming participation in EnhanceFitness and are given the option of writing to the site if they believe that a patient should not participate.
- Essential program components and activities
 - Warm-up (5-8 minutes)
 - Cardiovascular workout (20 minutes)
 - Resistance strength training (20 minutes)
 - Flexibility (8-10 minutes)
 - Cool-down (3-5 minutes)
 - Balance training included in warm-up and cool-down
- Length/Timeframe of program
 - One hour classes, 3 times per week. Classes are ongoing and are provided continuously all year long.
- Recommended class size
 - Minimum of 10 and maximum of 25. Participants typically attend 2 of the 3 weekly classes.
- Desired outcomes
 - Increased strength.
 - Boost activity levels.
 - Elevate mood. Research shows that exercise can help decrease depression.
- Measures and evaluation activities
 - Outcomes testing is conducted in the first week of classes and repeated every four months. Tests include the Bicep Curl to test upper body strength, the 8 Foot Up and Go to test balance and mobility, and the Chair Stand to test lower body strength. These are validated tests (Fullerton Fitness Test) as researched by C. Jessie Jones, PhD, and Roberta E. Rikli, PhD. Optional tests include the 6-minute walk, 2-minute step test, and the 1-leg stand.
 - Outcomes testing results are compiled and analyzed by Senior Services Project Enhance. Computer-scannable forms are provided to sites and include tracking forms for participant demographics, functional testing, and attendance. Sites complete the forms and send them to the Project Enhance administrative office. Project Enhance enters and analyzes the data. Sites receive an annual outcomes report including baseline to follow-up changes, baseline compared to others, and baseline to follow-up changes compared to others. Other reports can also be requested.

Health Outcomes and Evidence Supporting Health Outcomes

- In a 1994 randomized controlled trial, participants had significantly better scores on 7 of 8 SF-36 subscales (a standardized evaluation tool normalized for older adults) compared to controls. They also had fewer depressive

symptoms than controls (Wallace et al, 1998). Note: EnhanceFitness later used the shorter SF-12 subscale for evaluation purposes during program dissemination, but no longer uses either the SF-36 or SF-12 unless requested by a site.

- In a nationwide evaluation of 403 EnhanceFitness participants conducted in 2005, participants significantly improved in the Up and Go, Chair Stand, and Arm Curl measurements after four months compared to baseline measurements (Snyder & Barkey, 2006; based on EnhanceFitness database information).

Program Costs

(please see http://www.projectenhance.org/admin_ef_expenses.html for additional and most recent cost information)

- EnhanceFitness Package
 - Basic fee, Year 1: \$3,000 (includes one site)
 - Fee per each additional site: \$1,000
 - Package includes:
 - EnhanceFitness license
 - EnhanceFitness marketing materials
 - Web site link
 - 1.5 day Enhance-Fitness instructor training for up to 12 instructor candidates
 - Administrative manual
 - EnhanceFitness instructor manual
 - Data collection forms
 - Data entry, analysis, and reports
 - Instructor monitoring (King County, WA only)
 - Annual national program report
 - Subscription to listserv
 - Invitation to Annual Instructor Workshop
 - EnhanceFitness instructor video
 - Up to 5 hours of technical assistance by Enhance staff
 - Basic Fee Renewal: \$300/site
 - Renewal fee per additional site: \$100
- YMCA fitness certification by EnhanceFitness T-Trainer
 - Basic fee: \$125
 - *Exercise for Older Adults: ACE's Guide for Fitness Professionals* (2nd Edition, \$34.95, payable to and purchased from the American Council on Exercise)
- EnhanceFitness Master Trainer Training
 - Basic fee: \$2,000
 - Package includes:
 - 4-day training
 - Master Trainer curriculum
 - EnhanceFitness instructor manual
 - Invitation to annual Master Trainer Workshop
 - Program updates
 - Trainer monitoring
 - Subscription to listserv

Program Savings

- From Group Health Cooperative Cost Analysis in 2000 (Ackermann et al, 2003):
 - The average increase in annual total health costs of participants was \$642 compared to non-participant increase of \$1,175
 - If attending class once per week, 6% cost savings for participants compared to non-participants
 - If attending class more than once per week, 21% cost savings

Resource Requirements

- Facility
 - Enough space for each participant to move around comfortably
 - A room with good lighting, a wooden floor (recommended), and good ventilation
 - Room temperature of 68-72 degrees
 - Area that does not echo
 - ADA accessible
- Equipment and materials
 - Adjustable ankle and wrist weight cuffs for a class of 20 (approximate cost for a class of 20: \$800)
 - Rolling cart for the weights
 - Secured room for storing the weights
 - Sturdy, armless straight-back chairs
 - Music
 - Performance Measure Equipment:
 - Stop watch
 - Five-pound and eight-pound hand-weights
 - Tape measure
 - Cone (or garbage can or large water bottle)

Training Requirements

- Instructor training
 - Fitness instructors must be certified by a nationally recognized fitness organization such as YMCA, ACE, or ACSM. They must also attend the required 1.5 day EnhanceFitness Instructor training. It is recommended that the class instructor and the site coordinator and/or manager attend the training.
- Instructor certification required?
 - Yes, they must be certified fitness instructors and attend the 1.5 day EnhanceFitness Instructor training.
- Instructor qualifications
 - Certified fitness instructor
 - Current CPR certification
 - Preferred (not required) qualifications:
 - 2 years group exercise leader experience or background in exercise science, physical education or related health field
 - Knowledge of older adults' needs and issues
 - Basic motivational techniques
- Number of instructors required per class
 - One

References

Ackermann, R., Cheadle, A., Sandhu, N., Madsen, L., Wagner, E., & LoGerfo, J. (2003). Community exercise program use and changes in healthcare cost for older adults. *American Journal of Preventive Medicine*, 25(3): 232-7.

Buchner, D., & Wagner, E. (1992). Preventing frail health. *Health Promotion and Disease Prevention*, 8(1): 1-17.

Keenan, T., & Hawkins, M. (2004). *Synthesis of AARP research in physical activity: 1999-2003*. Retrieved April 10, 2006 from AARP Web site: http://assets.aarp.org/rgcenter/health/activity_synth.pdf

Snyder, S., & Barkey, B. (2006). *Enhancing fitness with Enhance Fitness*. Retrieved April 10, 2006 from Alabama Department of Public Health Web site: <http://www.adph.org/alphn/470handouts.pdf>

Wallace, J., Buchner D., Grothaus L., Leveille, S., LaCroix, A., Wagner, E. (1998). Implementation and effectiveness of a community-based health promotion program for older adults. *Journal of Gerontology: Medical Sciences*, 53a(4): M301-M306.

This program overview was prepared by Ellen Schneider, Associate Director for Operations and Communications, UNC Institute on Aging. For additional program information, please visit the Project Enhance website: <http://www.projectenhance.org/>. Available health outcomes, cost, and savings data presented when known. We extend our thanks to the NC Area Agency on Aging directors for their assistance in designing the format for this document and to Project Enhance for reviewing the content.